

Name \_\_\_\_\_

Math 1

Quiz 1

For all problems, show all work. Do not round unless instructed otherwise. You may use a graphing calculator. Good luck! ☺

1. (1C) Solve the equation  $6x - (x - 3) = 3x + 7$ . (You need not justify each step, but you should still show all work.)

2. (1C) Here is how Delphine solved the above equation along with her justification:

$6x - x = 3x + 10$	I added 3 to both sides.
$5x = 3x + 10$	I combined like terms on the left hand side.
$2x = 10$	I subtracted $3x$ from both sides.
$x = 5$	I divided both sides by 2.

Delphine checked her answer, but it did *not* check out. Thus, she made at least one error. Use complete sentences to describe the error(s) that Delphine made.

There are more problems on the back! ☺

For the following three problems, refer to the following information:

François and his family went on a trip to King's Island. François wanted to keep track of expenditures. Thus, he defined the following variables:

quantity	description	units
$d$	total distance driven	miles
$p$	number of family members who went on the trip	
$H$	total cost of hotel	dollars
$A$	cost of admission to King's Island per person	
$m$	number of meals eaten by the family on the trip	
$C$	cost of each meal for entire family	
$F$	average fuel mileage of family's SUV during trip	miles per gallon
$g$	amount of gasoline used on the trip	gallons
$D$	price of gasoline	dollars per gallon

3. (1A) Use the quantities in the above chart to write an expression for the total cost of the trip. You may define other quantities (if you need more than four, you may use scratch paper); however, you must use at least three of the quantities defined above in your expression.

4. (1B) For all quantities for which units are not given, determine the unit in which the quantity is measured. (You must also do this for any new quantities you defined for problem 3.) Write all of these units in the "unit" column in the table above.

5. (1A, 1B) State the units in which the quantity  $\frac{H}{p}$  is measured, and describe the quantity that this expression measures.

6. (C6) Once you have completed the previous five problems, show Mr. Buck your engraved graphing calculator.

Name \_\_\_\_\_

Math 1

Quiz 1

For all problems, show all work. Do not round unless instructed otherwise. You may use a graphing calculator. Good luck! ☺

1. (1C) Solve the equation  $7x - (x - 2) = 4x + 6$ . (You need not justify each step, but you should still show all work.)

2. (1C) Here is how Bertha solved the above equation along with her justification:

$7x - x = 4x + 8$	I added 2 to both sides.
$6x = 4x + 8$	I combined like terms on the left hand side.
$2x = 8$	I subtracted $4x$ from both sides.
$x = 4$	I divided both sides by 2.

Bertha checked her answer, but it did *not* check out. Thus, she made at least one error. Use complete sentences to describe the error(s) that Bertha made.

There are more problems on the back! ☺

For the following three problems, refer to the following information:

Fernando and his family went on a trip to Six Flags. Fernando wanted to keep track of expenditures. Thus, he defined the following variables:

quantity	description	units
$d$	total distance driven	miles
$p$	number of family members who went on the trip	
$H$	total cost of hotel	dollars
$A$	cost of admission to Six Flags per person	
$m$	number of meals eaten by the family on the trip	
$C$	cost of each meal for entire family	
$F$	average fuel mileage of family's SUV during trip	miles per gallon
$g$	amount of gasoline used on the trip	gallons
$D$	price of gasoline	dollars per gallon

3. (1A) Use the quantities in the above chart to write an expression for the total cost of the trip. You may define other quantities (if you need more than four, you may use scratch paper); however, you must use at least three of the quantities defined above in your expression.

4. (1B) For all quantities for which units are not given, determine the unit in which the quantity is measured. (You must also do this for any new quantities you defined for problem 3.) Write all of these units in the “unit” column in the table above.

5. (1A, 1B) State the units in which the quantity  $\frac{D}{F}$  is measured, and describe the quantity that this expression measures.

6. (C6) Once you have completed the previous five problems, show Mr. Buck your engraved graphing calculator.